

New Species of Bark Beetles from California
with Notes on Synonymy¹
(Coleoptera : Scolytidae)

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During intensive studies on the Scolytidae of California, eight new species and several new synonyms were discovered. The new species represent the genera *Myeloborus* Blackman, *Phloeosinus* Chapuis and *Pityophthorus* Eichhoff.

***Myeloborus confusus* Bright, new species**

This species differs from all described species in the genus by the more abundant frontal hairs of the female, by the reduction of the frontal carina in the male to a toothlike projection on the epistoma with a slight indication of a carina above, and by the large size of both sexes. It does not seem to be closely related to any species presently known. In size and shape, this species resembles *M. boycei* but is readily distinguished by the characteristics of the frons given above.

This species was originally designated "*Pityophilus confusus* Bruck" (unpublished) in the Bruck collection at Ohio State University. His specific name is retained here.

FEMALE.—Length 2.9 mm, (paratypes 2.5–2.9 mm), 2.9 times longer than wide; color black with reddish tinge.

Frons broadly flattened on a semicircular area extending nearly to eyes, slightly concave in center; surface strongly punctured, more strongly above, clothed with numerous, long, yellowish hairlike setae, setae longer at periphery; epistomal margin straight with a border of stouter yellowish hairs. Antenna reddish-brown, club slightly longer than wide, three distinct, arcuate sutures visible, segments one and two together slightly shorter than three and four together.

Pronotum 1.05 times longer than wide, sides parallel on posterior third, converging to the narrowly rounded anterior margin; anterior portion steep, with numerous erect asperities in broken concentric rows, the median pair on anterior margin slightly longer than others; summit reddish-brown, distinctly but slightly elevated, transversely impressed behind; posterior area darker in color, deeply punctured, with a broad impunctate median line; posterior margin broadly sinuate, with a fine raised line.

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Elytra 1.4 times longer than wide, sides parallel, posterior outline broadly rounded; surface reddish-brown to black, shining; striae not impressed, except first; stria punctures of moderate size, impressed in nearly regular rows; interspaces sparsely punctured, punctures about same size as stria punctures, surface faintly rugulose. Declivity sloping; suture moderately elevated, with a row of small granules; second interspace widened, brightly shining; lateral elevation prominent, with a row of larger granules on the convex third interspace extending from the summit to its junction with the ninth interspace, granules continued on the elevated ninth interspace for a short distance.

MALE.—Similar to female except smaller, 2.5 mm; frons convex above, very slightly impressed on each side of the faint longitudinal carina which is more strongly elevated on epistoma; surface strongly punctured. Declivity with suture and lateral elevations with very faint granules.

TYPE LOCALITY.—MT. TALLAC (spelled Talac on labels), ELDORADO COUNTY, CALIFORNIA.

HOST.—*Pinus albicaulis* Engelm.

TYPE MATERIAL.—The *female holotype*, allotype, and 30 paratypes were collected by A. T. McClay on 2 July 1930, at the type locality, and one paratype was collected at Tioga Pass, Yosemite National Park, California on 28 July 1936, from *Pinus albicaulis*.

The primary types and 6 paratypes are deposited at the Ohio State University. Other paratypes are deposited in the California Academy of Sciences, San Francisco; the California Insect Survey, University of California, Berkeley; the University of California at Davis; the Canadian National Collection, Ottawa, Ontario; and in my collection.

***Phloeosinus woodi* Bright, new species**

This new species closely resembles *P. antennatus* Swaine but differs in a number of characters. The sides of the pronotum are more strongly arcuate, and the punctures are much larger and closer together, giving the pronotum a more roughened appearance. The declivital teeth of the male are larger, and the depression on the frons of *P. woodi* is broader and shallower. The declivity of the female is less thickly clothed with flat, erect scales.

MALE.—Length 2.15 mm, 2.05 times longer than wide. Head pronotum, legs, and ventral surface black; elytra red; vestiture yellowish.

Frons convex above eyes, with a deep, broad concavity above epistoma divided by a prominently raised carina extending from epistomal margin to near vertex of cavity, carina more strongly elevated towards epistomal margin; surface strongly granulate-punctate on sides and above cavity, smoother and more shining in cavity; epistomal margin very broadly emarginate; eyes and antennae as in *P. antennatus*.

Pronotum 1.3 times wider than long, sides very broadly rounded, slightly con-

stricted before broad anterior margin; surface strongly punctured, roughened between punctures; punctures deep, large, separated from each other by about their own diameters; vestiture of stout, yellowish setae which are about twice as long as a puncture.

Elytra 1.3 times longer than wide, sides slightly arcuate; striae slightly impressed, about as wide as interspaces, and with large distinct punctures; interspaces shining, finely roughened, clothed (except first) with one or two rows of erect, scalelike setae, each seta about three to four times longer than wide, setae hairlike on first interspace. Declivity with first, third, and alternate interspaces with blunt tubercles as long as or slightly shorter than scalelike setae; second interspace narrower than on disk, with shorter, broader scales, each scale about 1.5 times longer than wide.

FEMALE.—Similar to male but frons convex with faint carina and with declivital teeth much smaller.

VARIATION.—The most obvious variation observed among the paratypes is in the depth of the frontal cavity of the male. The height and placement of the declivital teeth and the density of declivital pubescence also vary.

TYPE LOCALITY.—CYPRESS CAMP, 12 MILES WEST OF HAT CREEK, SHASTA COUNTY, CALIFORNIA.

HOST.—*Cupressus macnabiana* A. Murr and *C. bakeri* Jeps.

TYPE MATERIAL.—The *male holotype*, allotype and 30 paratypes were collected 24 June 1961, by S. L. Wood, J. B. Karren, and D. E. Bright. Six additional paratypes were collected from the type locality on 28 August 1946, by T. O. Thatcher; 22 paratypes were collected on the same date at Lake Eiler, Shasta County, California by S. L. Wood; 13 paratypes were collected at the type locality on 17 June 1962, by D. E. Bright and B. A. Barr; 51 paratypes were collected from the same host and locality on 6 November 1965, by L. B. and C. W. O'Brien; and 16 paratypes are labeled Hat Creek, California, 7 August 1942, *Cupressus bakeri*, C. E. Startt and D. DeLeon, collectors.

The holotype, allotype and 30 paratypes are in the collection of S. L. Wood, Brigham Young University, Provo, Utah. Additional paratypes are in the collections at the California Insect Survey, University of California, Berkeley; the California Academy of Science, San Francisco; the Pacific Southwest Forest and Range Experiment Station, U. S. Forest Service, Berkeley; the Canadian National Collection, Ottawa, Ontario; the U. S. National Museum, Washington, D. C.; C. W. O'Brien, Berkeley, California; and in my collection.

The author takes pleasure in dedicating this species to Dr. S. L. Wood, who allowed the author to describe it at this time.

***Pityophthorus piceus* Bright, new species**

This species has the antennal and elytral characters of Blackman's

Group I; however, it lacks the elevated ninth elytral interspace. It may be easily recognized by the presence of two to four prominent teeth on the anterior margin of the pronotum, by the elongate longitudinal carina and strongly punctured frons of the male, and by the long, incurved yellow hairs on the distinctly punctured female frons.

FEMALE.—Length 2.00 mm, 3.1 times longer than wide, reddish-brown to black, legs and pronotal summit lighter.

Frons flattened from eye to eye and from vertex to epistoma, clothed with long, incurved, yellowish, hairlike setae; surface smooth, shining, with small impressed punctures in center, these becoming larger and closer toward periphery, hairs shorter and sparser in center. Antennal club with first segment distinctly narrower than second or third, first and second segment together about 0.7 times as long as third and fourth together.

Pronotum about as long as wide, sides evenly arcuate, slightly constricted before the anterior margin; anterior margin moderately rounded, with three prominent teeth (two to four in paratypes); anterior slope beset with erect asperities arranged in broken concentric rows; summit lighter in color, prominently elevated; posterior portion with abundant, isolated, impressed punctures; median line rather broad and impunctate.

Elytra as wide as pronotum, 1.9 times longer than wide; striae not impressed, indicated by rows of obscure punctures and short, yellowish setae; first, third and alternate interspaces sparsely punctured, armed with setae up to twice as long as striae setae; setae more abundant on lateral portions. Declivity with lateral portions rounded; suture slightly impressed, devoid of granules; striae punctures obsolete but visible; interspaces not widened.

MALE.—Similar in size and proportions to female; frons convex, rather strongly punctured on each side of an elevated, elongate, median carina, with vestiture of inconspicuous yellowish setae; pronotum closely resembling that of female except anterior margin which is armed by two prominent teeth; declivity with suture more strongly impressed.

TYPE LOCALITY.—MT. PINOS, VENTURA COUNTY, CALIFORNIA.

HOST.—*Pinus flexilis* James.

TYPE MATERIAL.—The *female holotype*, allotype, and five paratypes were collected on 9 September 1965, by D. E. Bright and D. N. Kinn. The primary types are deposited in the California Academy of Science, San Francisco; paratypes are deposited in the collections of the California Insect Survey, University of California, Berkeley, and of the author.

***Pityophthorus punctifrons* Bright, new species**

This species seems to be closely related to *P. exiguus* Blackman (Group III). It differs by the almost total lack of a frontal carina in both sexes and by the deeper, more distinctly separated frontal punc-

tures, by the more prominent elytral and pronotal punctures and by its host and distribution.

FEMALE.—Length 1.9 mm, 2.6 times longer than wide, reddish-brown, legs and antennae lighter.

Frons convex above, rather feebly transversely concave above epistomal margin; epistomal margin straight, with a slight median elevation; surface shining, smooth and distinctly punctured, punctures isolated and moderately deep above, smaller and shallower below; very small impunctate area around the epistomal elevation. Antennal club broadly oval, broadest through second segment; second and third segments about equal in width with sutures weakly arcuate.

Pronotum about as long as wide, sides weakly curved, barely constricted in anterior third; anterior margin broadly rounded, with numerous, isolated, erect asperities; anterior area distinctly asperate in broken concentric rows, summit not elevated; posterior area distinctly punctured, median line slightly elevated, impunctate.

Elytra 1.6 times longer than wide, broadly rounded behind; striae marked by regular rows of fine punctures bearing very short setae; interspaces smooth, first, third, and alternate interspaces sparsely punctured, each puncture bearing a slightly longer setae. Declivity barely sulcate; suture slightly elevated and finely granulate; first and second striae finely punctured, first impressed; second interspace not widened; lateral elevations rounded, not granulate.

MALE.—What is thought to be the male of this species closely resembles the female in size and sculpture. It differs by the presence of a weak frontal carina extending from the epistomal margin to above the eyes and by the coarser punctured pronotum and elytra.

TYPE LOCALITY.—FRAZIER PARK, KERN COUNTY, CALIFORNIA.

HOSTS.—*Pinus monophylla* Torr. & Frem. and *P. quadrifolia* Parl.

TYPE MATERIAL.—The *female holotype* and three paratypes were collected at the type locality on 9 September 1965, by D. E. Bright and D. N. Kinn. The male allotype and five paratypes were collected from Juniper Hills, near Valyermo, Los Angeles County, California on 30 August 1956, by G. C. Trostle (Hopk. U. S. 34059). Nineteen additional paratypes were collected at Mt. Laguma, California, on 19 March 1941, from *P. quadrifolia* by D. DeLeon (Hopk. U. S. 32525B), and 10 paratypes were collected at Wrightwood, California, on 21 October 1941, from *P. monophylla* by D. DeLeon (Hopk. U. S. 32654A).

The primary types are deposited in the California Academy of Sciences, San Francisco. Paratypes are deposited in the U. S. National Museum, Washington, D. C.; the Pacific Southwest Forest and Range Experiment Station, U. S. Forest Service, Berkeley, California; the California Insect Survey, University of California, Berkeley; and in my collection.

***Pityophthorus singularis* Bright, new species**

This species, in Group V, is easily distinguished from other described species by the very faint, low longitudinal carina on the male frons, the more strongly granulate declivital elevations, and the nearly regular rows of stria punctures. It does not appear to be closely related to any Californian species known to me, but will key close to *P. comosus* and *P. carinulatus* in Blackman's 1928 key to *Pityophthorus*.

FEMALE.—Length 2.2 mm (paratypes 2.0–2.7 mm); 2.9 times longer than wide; reddish-brown with ventral surface lighter.

Frons a large flattened area, shining and deeply punctured over entire surface except a small median area over epistomal margin; each puncture giving rise to a long, yellowish, minutely branched, hairlike seta, setae longer and incurved on outer margin; long setae above eye about 0.6 times as long as total length of antennae. Eye 2.2 times longer than wide, granulate and emarginate at antennal insertion. Antennal scape slightly longer than funicle, club slightly longer than wide, all segments of club about equal in width.

Pronotum as long as wide, sides straight on posterior two-thirds, moderately constricted before the anterior margin; anterior margin armed with six distinct serrations; anterior slope with typical broken concentric rows of asperities; summit slightly elevated; posterior portion distinctly punctured, median line broad and smooth; lateral portions below lateral line smooth, shining and sparsely punctured.

Elytra 1.9 times longer than wide; sides straight, rather broadly rounded behind; striae with shallow punctures in nearly regular rows except near suture, punctures more evident in posterior portions; interspaces subrugose, punctures sparse and about equal in size to stria punctures. Declivity broadly sulcate, moderately deep; lateral elevations slightly higher than sutural elevations; suture and lateral elevations distinctly granulate, granules stronger on lateral portions.

MALE.—Generally similar to female in size and proportions; frons convex above slightly impressed epistoma, strongly rugose above, punctured below; epistoma with a poorly developed, short, longitudinal carina (obsolete in some paratypes), vestiture sparse; pronotal sculpture stronger than in female; elytra and declivity similar except declivital granules stronger.

TYPE LOCALITY.—12 MILES WEST OF LONE PINE, INYO COUNTY, CALIFORNIA.

HOST.—*Pinus monophylla* Torr. & Frem.

TYPE MATERIAL.—The *female holotype*, allotype, and 51 paratypes were collected on 18 September 1965, by D. E. Bright and D. N. Kinn. Two additional paratypes were collected at Frazier Park, Kern County, California, 9 September 1965, from the same host and by the same collectors.

The primary types and 10 paratypes are deposited in the California Academy of Sciences, San Francisco. Additional paratypes are in the

California Insect Survey Collection, University of California, Berkeley; the U. S. National Museum, Washington, D. C.; the Canadian National Collection, Ottawa, Ontario; and in my collection.

***Pityophthorus aurulentus* Bright, new species**

This species, in Group VII, appears to be related to *P. gracilis* Swaine, but the female differs by the much longer and more abundant frontal hairs and by the more shallow elytral declivity; the male differs by the finer, smaller pronotal and elytral punctures and by the shorter, stouter declivital pubescence.

FEMALE.—Length 2.0 mm (paratypes 1.8–2.2 mm), 3.6 times longer than wide, reddish-brown in color.

Frons flattened over a rather large area, surface entirely obscured by a dense brush of very long, incurved, yellowish hairlike setae; the longest setae arising from the vertex about 0.3 mm in length. Eyes and antennae as in *P. gracilis*.

Pronotum 1.3 times longer than wide, sides parallel on posterior half, gradually converging to the rounded anterior margin; anterior margin with numerous low serrations; anterior slope with typical asperities; summit slightly elevated with a faint transverse impression behind; posterior surface smooth and shining, with fine scattered punctures; median line not raised, smooth and impunctate.

Elytra 2.2 times longer than wide, sides parallel, rounding to the acuminate apex; striae indicated by regular rows of moderately deep punctures, first striae impressed; interspaces smooth and shining, sometimes with few punctures. Declivity shallowly sulcate; suture and lateral elevations with very small, obsolete granules; sulcus smooth and shining. Vestiture of short yellowish striae setae, slightly longer on interspaces, lateral portions, and declivity.

MALE.—Stouter than female, 3.1 times longer than wide; frons with a well-developed transverse carina, finely rugose and punctured below, pubescence consisting of very few scattered setae; pronotum and elytra more strongly sculptured; declivity only slightly more deeply sulcate, granules stronger, setae longer and stouter.

TYPE LOCALITY.—WALNUT CREEK (FOOT OF SHELL RIDGE), CONTRA COSTA COUNTY, CALIFORNIA.

HOST.—*Pinus radiata* D. Don.

TYPE MATERIAL.—The *female holotype*, allotype, and twelve paratypes were collected at the type locality by J. A. Powell on 13 October 1963, and emerged from rearing by October, 1964. Five additional paratypes were collected at San Jose, Santa Clara County, California on 21 March 1930, from the same host (Hopk. U. S. 19011A); three paratypes were collected at Lompoc, Santa Barbara County, California on 21 March 1941, from *Pinus muricata* by D. DeLeon (Hopk. U. S. 32035A); and one paratype is from Walnut Creek, collected on 8 September 1958, from pine by Vanderpool (Cal. Dept. Agric. 58J30-20).

The holotype, allotype, and four paratypes are deposited in the California Academy of Sciences, San Francisco. Additional paratypes are in the U. S. National Museum, Washington, D. C.; the Canadian National Collection, Ottawa, Ontario; the California Insect Survey, University of California, Berkeley; the Pacific Southwest Forest and Range Experiment Station, Berkeley; the California State Department of Agriculture, Sacramento; and in my collection.

***Pityophthorus deleoni* Bright, new species**

This new species possesses characters of both Group V and VI. The longitudinal carina of the male, although present, is poorly developed, and the transverse carina is indicated by a very faint, short line which may not correspond to the transverse carina of Group VI. The elytral striae are in definite rows and the interspaces are smooth and impunctate. The antennal club has the characters of Group V. Since most of the characters are present in Group V, this species is tentatively placed in that group.

FEMALE.—Length 1.9 mm (paratypes 1.7–2.1 mm), 2.7 times longer than wide; dark reddish-brown.

Frons convex and slightly flattened over a large semicircular area extending from eye to eye, surface shining, rather finely punctured; pubescent over entire surface except a small area above epistomal margin; setae longer (0.17 mm at vertex) and incurved around margin. Antennal scape 1.5 times longer than funicle; club with first suture slightly arcuate, others more strongly arcuate.

Pronotum as long as wide, sides arcuate and feebly constricted before the serrate anterior margin; anterior slope of dorsal surface typically asperate; summit slightly elevated with no distinct impression behind; posterior surface punctate and minutely reticulate.

Elytra 1.7 times longer than wide, narrowly rounded behind; striae punctured in regular rows, punctures distinct; interspaces smooth and shining, usually with only a few punctures. Declivity sloping, moderately sulcate with rounded, slightly elevated lateral margin showing a very slight tendency to curve toward the suture at the summit; suture moderately wide, elevated; lateral margins with a few small granules and long setae.

MALE.—Slightly larger and stouter than female; 1.9 mm long and 2.6 times longer than wide. Frons flattened on each side of the faint longitudinal carina, obscurely punctured, shining and pubescent, transverse carina not evident; pronotum more narrowly rounded in front, sides more strongly arcuate. Declivity deeper, more strongly sulcate; third interspace forming lateral margin much higher, the inpushing of the summits much more evident; suture and lateral margin with small granules.

TYPE LOCALITY.—BONNIE DOONE, SANTA CRUZ COUNTY, CALIFORNIA.

HOST.—*Pinus attenuata* Lemm.

TYPE MATERIAL.—The female holotype, allotype, and thirteen para-

types were collected at the type locality on 21 May 1941, by D. DeLeon (Hopk. U. S. 33689).

The holotype and allotype are deposited in the U. S. National Museum, Washington, D. C. Paratypes are deposited in the Pacific Southwest Forest and Range Experiment Station, Berkeley; the California Academy of Sciences, San Francisco; the California Insect Survey, University of California, Berkeley; and in my collection.

This species is named in honor of Donald DeLeon who collected the type series.

***Pityophthorus praealtus* Bright, new species**

This species possesses many of the characters of Blackman's Group III but does not appear to be closely related to any known species in that group. It is provisionally placed in Group III until more is known about the species groups of *Pityophthorus*.

FEMALE.—Length 1.7 mm (paratypes 1.6–1.9 mm), 2.9 times longer than wide. Dark reddish-brown in color.

Frons flattened over a semicircular area extending from eye to eye and to well above the eyes, slightly but distinctly concave above the epistoma; surface shining, finely and sparsely punctured, with a few short, scattered setae. Antennal club oval, 1.4 times longer than wide, first segment slightly narrower than others.

Pronotum 1.1 times longer than wide, roughly triangular in shape, with anterior margin narrowly rounded and armed with two close, erect asperities (two additional very small asperities present in some paratypes); surface shining; anterior slope with usual semi-concentric rows of sparse asperities; summit prominent, not strongly elevated; posterior area with rather large, shallow punctures beset with short setae; median line impunctate and not evident.

Elytra 1.7 times longer than wide, sides parallel and posterior outline broadly rounded; striae punctured in regular rows, punctures distinct and impressed, each with a very short seta; interspaces smooth and shining; first, third, and alternate interspaces with punctures about equal in size to striae punctures, seta a little longer than those of striae. Declivity with suture depressed except at apex; second interspace very slightly widened and smooth; third interspace devoid of granules, smooth and shining; striae punctures slightly reduced in size.

MALE.—Very similar in size and proportions to female except frons flat, not concave or carinate; elytral suture more strongly depressed at declivity and pronotal and elytral punctures and asperities stronger.

TYPE LOCALITY.—MT. SHASTA SKI AREA, SISKIYOU COUNTY, CALIFORNIA.

HOST.—*Pinus albicaulis* Engelm.

TYPE MATERIAL.—The female holotype, allotype, and six paratypes were collected at the type locality on 15 July 1963, by D. E. Bright. The holotype and allotype are deposited in the California Academy of Sci-

ences, San Francisco. Paratypes are deposited in the California Insect Survey Collection, University of California, Berkeley and in the Canadian National Collection, Ottawa, Ontario.

HYLOCURUS HIRTELLUS (Leconte)

Micracis hirtellus Leconte, 1876, Proc. Amer. Phil. Soc., 15: 368.

Hylocurus hirtellus: Wood, 1966, Gt. Basin Nat., (in press).

Hylocurus crinitus Blackman, 1943, Proc. U. S. Natl. Mus., 93 (3165): 347, (new synonymy).

The type of *Hylocurus crinitus* Blackman was compared with several series of *Hylocurus hirtellus* from all parts of California and no distinguishing characteristics could be found.

PITYOPHTHORUS IDONEUS Blackman

Pityophthorus idoneus Blackman, 1928, Bull. New York State Coll. Forest., 1 (3-6), Tech. Pub. 25: 55.

Pityophthorus hopkinsi Blackman, 1928, Bull. New York State Coll. Forest., 1 (3-6), Tech. Pub. 25: 56, (new synonymy).

Pityophthorus ponderosae Blackman, 1928, Bull. New York State Coll. Forest., 1 (3-6), Tech. Pub. 25: 57, (new synonymy).

Direct comparisons of all three types with several series from California showed that only one species is represented. The differences on which Blackman based his species are felt to be only variations within the species.

PITYOPHTHORUS MODICUS Blackman

Pityophthorus modicus Blackman, 1928, Bull. New York State Coll. Forest., 1 (3-6), Tech. Pub. 25: 94.

Pityophthorus navus Blackman, 1928, Bull. New York State Coll. Forest., 1 (3-6), Tech. Pub. 25: 95, (new synonymy).

The types of the two species above were examined and compared with a large number of specimens from Arizona, California, and Baja California, and only one species was represented. This species is closely related to *P. tuberculatus* Eichhoff, but is most easily distinguished by the frontal characters of the female. In *P. tuberculatus* the frons of the female is smooth and shining, with long setae only around the perimeter; while in *P. modicus* there is an extension of the pubescence from the vertex to near the center of the frons.

PITYOPHTHORUS CONFERTUS Swaine

Pityophthorus confertus Swaine, 1917, Dominion Canada Dept. Agric., Entomol. Br., Bull. 14 (1): 27.

Pityophthorus burkei Blackman, 1928, Bull. New York State Coll. Forest. 1 (3-6), Tech. Pub., 25: 129, (new synonymy).

Paratypes of *P. burkei* were compared with long series of *P. confertus* from many localities. The differences Blackman noted were found to be within the limits of variation of *P. confertus*.

PHLOEOSINUS FRONTALIS Bruck

Phloeosinus frontalis Bruck, 1933, Canadian Entomol., 65: 55.

Phloeosinus granulatus Bruck, 1936, Bull. Southern Calif. Acad. Sci., 35: 33, (new synonymy).

Comparisons of types and paratypes of both species with large numbers of specimens from the type localities and various other locations in southern California have shown that only one species is represented. The differences between the two species as described by Blackman (1942) are within the normal variation that can be expected whenever long series are examined.

PHLOEOSINUS RUGOSUS Swaine

Phloeosinus rugosus Swaine, 1917, Dominion Canada Dept. Agric. Entomol. Br., Bull. 14 (1): 9.

Phloeosinus chamberlini Blackman, 1942, Proc. U. S. Natl. Mus., 92 (3154): 470, (new synonymy).

The types of both species have been examined and compared along with numerous specimens from Oregon and California. Although differences in the male frons can be detected when examining single specimens, when series are examined these differences clearly become variations within the population. In the absence of any consistent morphological, biological, or distributional differences, only one species is recognized.

STENOCLYPTE SULCATUS (Bruck)

Pseudothysanoes sulcatus Bruck, 1936, Bull. Southern Calif. Acad. Sci., 35: 33.

Stenoclyptes sulcatus: Wood, 1956, Canadian Entomol., 88 (5): 240.

Stenoclyptes ceanothi Blackman, 1943, Proc. U. S. Natl. Mus., 93 (3165): 358, (new synonymy).

Two paratypes of Bruck's species were compared with my specimens which previously had been compared with Blackman's type. No essential differences were observed and since distribution and host plant are the same, only one species is recognized.

LEPERISINUS CALIFORNICUS Swaine

Leperisinus californicus Swaine, 1916, Canadian Entomol., 48: 190.

Leperisinus californicus Essig, 1958, Insects and mites of western North America, p. 519, (new synonymy).

In the revised edition of Essig's Insects and mites of western North America (1958), Essig appears to describe a new species with the phrase "*Leperisinus californicus*, Essig, n. sp." followed by a brief description. No type designation is indicated. On the same page in the caption to Fig. 424 there is a reference to "*Leperisinus californicus* Essig," while on page 518 in the caption to Fig. 423 *Leperisinus californicus* Swaine is mentioned. Swaine's name is also referred to on page 517 under the common name of the olive bark beetle. When comparing these pages in the 1929 and 1958 editions it is obvious that Essig's name after *Leperisinus californicus* is a misprint. The term "n. sp." in the 1958 reference leads one to believe that a new species is described. The new name thus proposed is here regarded as a synonym of Swaine's species and it is also a primary homonym of Swaine's earlier name.

THYSANOES PHORODENDRI (Blackman)

Pseudothysanoes phorodendri Blackman, 1928, Bull. New York State Coll. Forest., 1 (3-6), Tech. Pub. 25: 202.

The type and several paratypes of *Pseudothysanoes phorodendri* Blackman were examined and found to belong to the genus *Thysanoes*. The pronotum is nearly equal in respect to length and width or very slightly longer than wide and the terminal process of the anterior tibiae is undivided. Blackman's species must therefore be transferred to *Thysanoes*.

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LITERATURE CITED

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